

A NOTE ON THE IDENTITY OF THE GENUS
BALANOSTREBLUS (MORACEAE)¹

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THE OBJECT OF THIS NOTE is to provide an identification for *Balanostreblus* Kurz, a monotypic genus of the Moraceae which has been credited to the Asiatic flora. It was assigned by Bentham and Hooker (Gen. Pl. 3: 377. 1880) to the subfamily Artocarpoideae and tribe Artocarpeae (using the modern names for these groups) and placed among the American genera of the tribe, next to *Sorocea* St.-Hil., a small genus of the tropical forest.

Balanostreblus was described by Kurz in 1873 (New Burmese Plants. Part III. Jour. Asiat. Soc. Bengal 42: 247. t. 19) and his account is given in full below.

BALANOSTREBLUS, nov. gen. Flores monoici; masculi ignoti (ex inflorescentiis valde juvenilibus probabiliter amentacei?). Feminei racemosi: perianthium cum ovario connatum, sursum liberum et ovarium omnino includens, apice perforatum. Ovarium semisuperum, 1-ovulatum, ovulo pendulo; stylus perbrevis, e perianthii orificio protrudens; stigmata 2, brevia, crassa, villosula. Drupa perianthio carnosio inclusa, monosperma. Arbor lactescens, subglabra, foliis alternis grosse spinescenti-dentatis. Genus imperfecte cognitum sed distinctissimum *Antiari* affine.

BALANOSTREBLUS ILICIFOLIUS, nov. sp. Arbor ramulis scabriuscule puberulis; folia elliptica ad lato-ovalia, petiolo terete 1-2 lin. longo glabro suffulta, basi saepius subinaequali acuta v. obtusa, rigide coriacea, spinoso-acuta, grosse spinoso-dentata, 1-3 poll. longa, glabra, supra nitida costa supra immersa subtus unacum nervis lateralibus arcuato anastomosantibus valde prominente; flores parvi, viridiusculi, pedicello brevi crasso suffulti, in racemum axillarem brevem collecti; perianthium obturbinatum, rugulose-tuberculatum, c. 2 lin. longum; drupae pisi minoris magnitudine, rubrae, rugulosae, carnosae, glabrae. — *Chittagong* (Hf. et Th. sub *Sapii* sp. No. 4); *Ava* (J. Anderson).

The generic characters were thus based by Kurz on the female inflorescences. The plate, which is reproduced here, shows these attached to a leafy shoot and also includes dissections of the flowers. The inflorescences are raceme-like, though presumably having the cymose origin typical of the Moraceae, and their appearance is in contrast to that of the other Old World genera of the Artocarpeae, in which the inflorescences are capitate. The pedicellate flowers are likewise distinctive in structure and may be regarded as having the ovary sunken in and fused to a fleshy receptacle which is surmounted by a short, tubular, perforate perianth from which

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Original illustration of *Balanostreblus ilicifolius* Kurz, Jour. Asiatic Soc. Bengal 42: t. 19. 1873.

the bifid style projects. In this, as in the general aspect of the inflorescences, the genus resembles *Sorocea*.

Kurz did not state from which plant the drawing was made, but the identity of this was established by Hutchinson in 1918 (Kew Bull. 1918: 147–153) when, in a paper which was primarily a revision of *Taxotrophis*, a genus belonging to the Moroideae, he also discussed the typification of *Balanostreblus ilicifolius*. He examined Kurz's material from the herbarium of the Botanic Garden, Calcutta, and found that it consisted of the specimen from Chittagong, *Hooker and Thomson 4* (also at Kew), and a specimen described as "cultivated at the Botanic Garden." Apparently no specimen from Ava was extant, since Hutchinson did not receive one, and he concluded that this might have been a living plant, though he mentioned that there was a collection under this name at Kew made by Anderson at Bhamo, about 180 miles to the north-east of Ava. Hutchinson stated that there was no doubt that the illustration had been prepared from the cultivated plant, which was female. The plant from Chittagong was male and this he identified as a collection of *Taxotrophis ilicifolia* Vidal, a variable species, which may have spiny-toothed leaves rather similar to those of the cultivated plant with which it had been matched by Kurz. Having thus shown that *Balanostreblus ilicifolius* was a *mixtum compositum*, Hutchinson redefined and redescribed the genus (l.c., 152), basing it entirely on the cultivated specimen and providing a new illustration. He still assumed that this plant was of Asiatic origin and suggested that it might be Anderson's collection from Ava. He thought that the genus should probably be removed to the Broussonetieae in the subfamily Moroideae. However, its characters are not in accord with that group.

In the course of a review of the characters of the genera of the Moraceae, *Balanostreblus* attracted my attention. The female inflorescence did not resemble that of any Old World genus and Bentham and Hooker's placing of the genus still seemed from the descriptions of Kurz and Hutchinson (in the absence of the lectotype) to be the most satisfactory, although the general classification of the Moraceae may be in need of revision. The genus thus appeared to be anomalous in the Asiatic flora.

Another possibility as to the origin of the plant was suggested by the finding under *Balanostreblus*, during a visit to the herbarium of the Muséum d'Histoire Naturelle, Paris, of a specimen which had been gathered by L. Pierre in the Botanic Garden at Calcutta in 1863, when he was assistant there. This was ten years earlier than Kurz's publication and the specimen had later been identified as *Balanostreblus ilicifolius* on the basis of Hutchinson's paper. It matched the description and plate exactly and it seems justifiable to assume that Pierre and Kurz made their collections from the same tree. The label gave the origin as "Brasilia ?? India ?" In view of this and the similarity already remarked between the female inflorescences and those of the South and Central American genus *Sorocea*, the sheet was compared with collections of that genus in the same herbarium. It was found to match almost perfectly *Guillemin 131*, Corcorado, Brasil méridional, 1838, which is the type of *Sorocea guilleminiana* Gaudi-

chaud, Bot. Voy. Bonite, *t.* 74, 1844, except that in the latter most of the individual receptacles are enlarged and contain mature seeds. This species is characterized by the verruculose surface of the receptacles.

It is therefore concluded that *Balanostreblus* Kurz emend. Hutchinson is based on an introduced species of *Sorocea*, which is identified as *S. guillemiana*, pending a revision of the genus. This was presumably brought in during the introduction of *Cinchona* to India, which took place at about this time and in the course of which several shipments of plants were sent from the New World under the auspices of the Royal Botanic Gardens at Kew.